

**ARIZONA GAME AND FISH DEPARTMENT
HABITAT PARTNERSHIP COMMITTEE
HABITAT ENHANCEMENT AND WILDLIFE MANAGEMENT PROPOSAL**

Game Branch / HPC Project Number:	14-207
Possible Funding Partners:	

PROJECT INFORMATION

Project Title: Grassland Restoration on the South Zone of the Kaibab National Forest (White Hill, Irishman Dam, and Ida maintenance).

Region and Game Management Unit: Region II, Units 7 and 8.

Local Habitat Partnership Committee (LHPC):

- Flagstaff/Williams HPC

Was the project presented to the LHPC?

YES[X] NO[]

Has this project been submitted in previous years? YES[X] NO[] **HCP Project #:** (Ida
If Yes, was it funded? YES[X] NO[] → Grassland Maintenance)

Project Type: Mechanical thinning

Brief Project Summary:

- Thin junipers, pines, and other invading conifers to restore or maintain approximately 2000-3000 acres of grasslands on the Williams Ranger District over a two-year period. This would improve habitat for pronghorn antelope, elk, and mule deer. It would also benefit many non-game grassland species of conservation concern (e.g., golden eagles, Gunnison's prairie dogs, and various songbirds and small mammals). Removing conifers would also benefit sensitive plant species such as disturbed rabbitbrush, which is a preferred forage species for antelope and elk.
 - The Williams Ranger District has restored or maintained over 17,000 acres across this landscape since 2006, largely through funding from the HPC program.
 - Reinitiate conservation efforts in The White Hill Vegetation Treatment Project. The White Hill project area provides important wintering habitat for pronghorn, mule deer, and elk. This area lies adjacent to the Ida Grassland Restoration Project which was mostly completed with HPC funded dollars in 2013 and 2014. Some maintenance could be required in this area so it is included in this proposal.
 - Continue conservation efforts in an important pronghorn wintering area, fawning area, and movement corridor on the Irishman Dam Grassland. This area is part of a greater landscape identified for restoration under the South Kaibab Grassland Conservation Plan.

Big Game Wildlife Species to Benefit: Pronghorn Antelope; Elk; Mule Deer

Implementation Schedule (Month/Day/Year):

Project Start Date: October, 2016

Project End Date: September, 2018

Environmental Compliance:

NEPA Completed: YES[X] No[] N/A[]

Projected Completion Date: _____

State Historic Preservation Office - Archaeological Clearance:

YES[X] No[] N/A[]

Projected Completion Date: _____

Arizona Game and Fish Department EA Checklist: N/A[X]

To be Completed by: _____

Projected Completion Date: _____

PROJECT FUNDING		
Special Big Game License Tag Funds Requested:	\$ 100,000 (\$50,000/year over two years, strictly for on-the-ground implementation; (\$33-50/acre)	
Cost Share or Matching Funds:	\$ 100,000 (\$100,000 expended on employee cost overhead, NEPA planning, employee salaries, and archeological survey and clearance).	
Total Project Costs:	\$ 200,000	
PARTICIPANT INFORMATION		
Applicant (please print): Justin Schofer Wildlife Biologist Williams and Tusayan Districts Kaibab National Forest	Address: Williams Ranger District 742 S. Clover Rd. Williams, AZ 86046	E-mail: jschofer@fs.fed.us
Telephone: (928) 635-5627		Date: 08/27/2014
AGFD Contact and Phone No. (If applicant is not AGFD personnel): Mike Rice (928) 606-2290 Colby Walton (928) 864-9384		
Project has been coordinated with: This proposal will be sent for review by the following organizations and groups: Arizona Antelope Foundation; Arizona Deer Association; Arizona Elk Society; Arizona Game and Fish Department; Arizona Wildlife Federation; Mule Deer Foundation; National Audubon Society (Northern Arizona Chapter); Rocky Mountain Elk Foundation; National Wild Turkey Federation; Quail Forever; and US Fish and Wildlife Service. All suggested editions will be incorporated. The ranchers that graze allotments within the project area fully support this effort. You may contact Earle and John Nagiller (928-635-9359) Frank McNelly (928) 699-1811 and John Cauthen (928-890-6943) to speak with ranchers about this project.		

NEED STATEMENT – PROBLEM ANALYSIS:

Historic overgrazing and fire exclusion have allowed junipers and pines to encroach upon hundreds of thousands of acres of historically open lands on the Kaibab National Forest. The Ida and Irishman Dam Grasslands serve as essential habitat for elk, mule deer, wild turkey – and most notably – pronghorn antelope. Golden eagles, burrowing owls, ferruginous hawks, Gunnison’s prairie dogs, and other grassland wildlife of conservation concern use these areas. However, these grasslands are being invaded by junipers and pinyon pines, to the point where mechanical treatment is necessary before fire can be effectively used for their maintenance.

The grassland thinning staff of the Williams Ranger District is largely funded by HPC funds. The Forest Service anticipates a 5-10% decline in its total budget in FY2015. With the current outlook for the agency’s budget, collaborative funding will become increasingly important to conserve grasslands on the Williams Ranger District. ***Please keep in mind that this project is scalable; grassland conservation costs approximately \$33-50/acre on the Williams Ranger District. Another note of importance: One of our two agra-axe operators is a seasonal employee whose length of term is***

directly related to the amount of external funding that the Kaibab receives through grants; the more funding received, the more acres accomplished.

PROJECT OBJECTIVES:

To restore or maintain 2,000-3,000 acres of grassland habitat used by pronghorn antelope, elk, mule deer, and many non-game species of conservation concern.

PROJECT DESCRIPTION AND STRATEGIES:

The Williams Ranger District would use agra-axe machines to thin junipers and pines that are encroaching upon important grasslands. Grassland receiving treatment would have 100-300 trees/acre of encroachment. Agra-axe operators would crush cut trees to improve visibility for pronghorn. Pre-settlement trees would be retained. After mechanical treatment, prescribed fire and some wildfire would be used to maintain these grasslands. However, this grant would not fund wildland fire management. Fuelwood collectors would be allowed to collect down trees within the project area.

Since 2006, the Williams Ranger District of the Kaibab National Forest has restored or maintained over 17,000 acres of grassland habitat through the use of agra-axe machines. In this proposal, we seek funding to continue grassland conservation to benefit wildlife, hunters, and the public at large. With this funding, we would treat an additional 2,000-3,000 acres between October 2016, and September, 2018. It would continue treatments in the White Hill project area and continue treatments in the Irishman Dam project area; both areas are important wintering and movement corridors for pronghorn antelope, mule deer, and elk. Some maintenance could occur in the Ida grassland area as areas are identified as needing maintenance.

PROJECT LOCATION:

See Maps 1-4 for locations. Written descriptions follow.

White Hill Grassland: Approximately 8 miles south east of Valle. T 25 N, R 3 E.

Irishman Dam Grassland: Approximately two miles south of I-40 and directly east of Hwy. 89. T.19 N., R.3 W.

Ida Grassland: Approximately 13 miles southeast of Valle. Directly south of the east-west portion of Hwy. 180 and approximately ten miles east of Hwy. 64. T. 24 N. and T. 25 N., R. 3 E. and R. 4 E.

LAND OWNERSHIP AT PROJECT SITE (Please state specifically if PRIVATE PROPERTY and provide landowner's name): All public land (Williams Ranger District, Kaibab National Forest).

HABITAT DESCRIPTION: Grasslands invaded by junipers, pinyon pines, and other woody species.

ITEMIZED USE OF FUNDS:

Special Big Game License Tag Funds

All tag funds (\$100,000 requested) would go toward on-the-ground implementation.

Itemized estimated daily cost to implement the agra-axe grassland restoration project.

Item	Daily Cost (\$)
2 Agra-Axe Operators' Wages	500
2 Bobcats	400
1 Truck	20
Diesel for Bobcats	100
Gasoline for Truck	100
Bobcat Maintenance	6
Total	1126
Average Cost Per Acre (~42* acres/day treated on average)	\$33-50

*Acreage totals may vary due to higher tree densities in untreated areas within the project areas

Cost Share or Matching Funds

\$100,000 would go toward project overhead costs (salaries, maintenance, fuel, etc.). The Forest Service and AZGFD have collectively funded thousands of acres of grassland conservation since the late 1990s.

LIST COOPERATORS AND DESCRIBE POTENTIAL PARTICIPATION:

This proposal will be sent for review by the following organizations and groups: Arizona Antelope Foundation; Arizona Deer Association; Arizona Elk Society; Arizona Game and Fish Department; Arizona Wildlife Federation; Mule Deer Foundation; National Audubon Society (Northern Arizona Chapter); Rocky Mountain Elk Foundation; National Wild Turkey Federation; Quail Forever; and US Fish and Wildlife Service. Ranchers with livestock on allotments within the project area fully support this project.

WOULD IMPLEMENTATION OF THIS PROJECT ASSIST IN PROVIDING, MAINTAINING, OR FACILITATING RECREATIONAL ACCESS?

YES[] NO[X] N/A[]

PROJECT MONITORING PLAN:

On-the-ground monitoring and inspection will be conducted regularly by the South Zone Wildlife Biologists of the Kaibab National Forest. Vegetation plots would be used to measure increase in forage. Monitoring by AZGFD Wildlife Managers would also be done.

PROJECT MAINTENANCE:

After mechanical thinning with agra-axe, prescribed fire (and when the opportunity arises, wildfire) will be used to maintain grasslands on a 7-12 year fire return interval.

PROJECT COMPLETION REPORT TO BE FILED BY:

Justin Schofer. South Zone Wildlife Biologist, Kaibab National Forest.

TREE SHEARING (AGRA-AXE, PUSH) PROJECTS *(see attached worksheet):*

TREE SHEARING WORKSHEET

PROJECT TITLE: Grassland Restoration on the South Zone of the Kaibab National Forest (White Hill, Irishman Dam, and Ida maintenance).

1) What is the estimated acreage of the project?

2,000 – 3,000 acres from October, 2016 to September, 2018. The total acreage treated through collaborative funding between Forest Service funded and HPC funds would exceed 20,000 acres upon project completion, including the entire Ida Grassland.

2) How are the trees going to be cleared? (agra axe, chain saw, push):

Agra-axe.

3) What is the estimated number of trees per acre?

100-300 trees/acre throughout most areas proposed for treatment.

4) Describe trees to be cleared (species, estimated diameter, single stem, multi-stem):

One-seed juniper (*Juniperus monosperma*; multi-stem), Utah juniper (*Juniperus osteosperma*; single-stem), pinyon pine (*Pinus edulis*). All post-settlement trees will be cleared. All pre-settlement trees will be retained. This would generally involve cutting trees up to 12" diameter-at-breast-height.

5) Describe terrain (slope, soil type, rocks)

Relatively even terrain. Mostly grassland mollisols. Rocky areas occur sporadically throughout the project area, but do not predominate. Pre-settlement trees will be retained.

6) Please list any special land management status for the project site (e.g. Wilderness, National Park, National Monument). If private land, list landowner.

N/A.

7) Please provide the following information about access to the proposed site:

Type of access (mark one): ☒ 2x4 vehicles ☐ 4x4 only ☐ Foot only**

**If foot access only: Distance in miles: Approx. hiking time:

Does access to this site require crossing private or tribal lands? YES ☐ NO ☒

Is the site relatively accessible for tree shearing equipment? YES ☒ NO ☐

Please describe any restrictions to public access: None.



Kaibab NF Agra-axes.



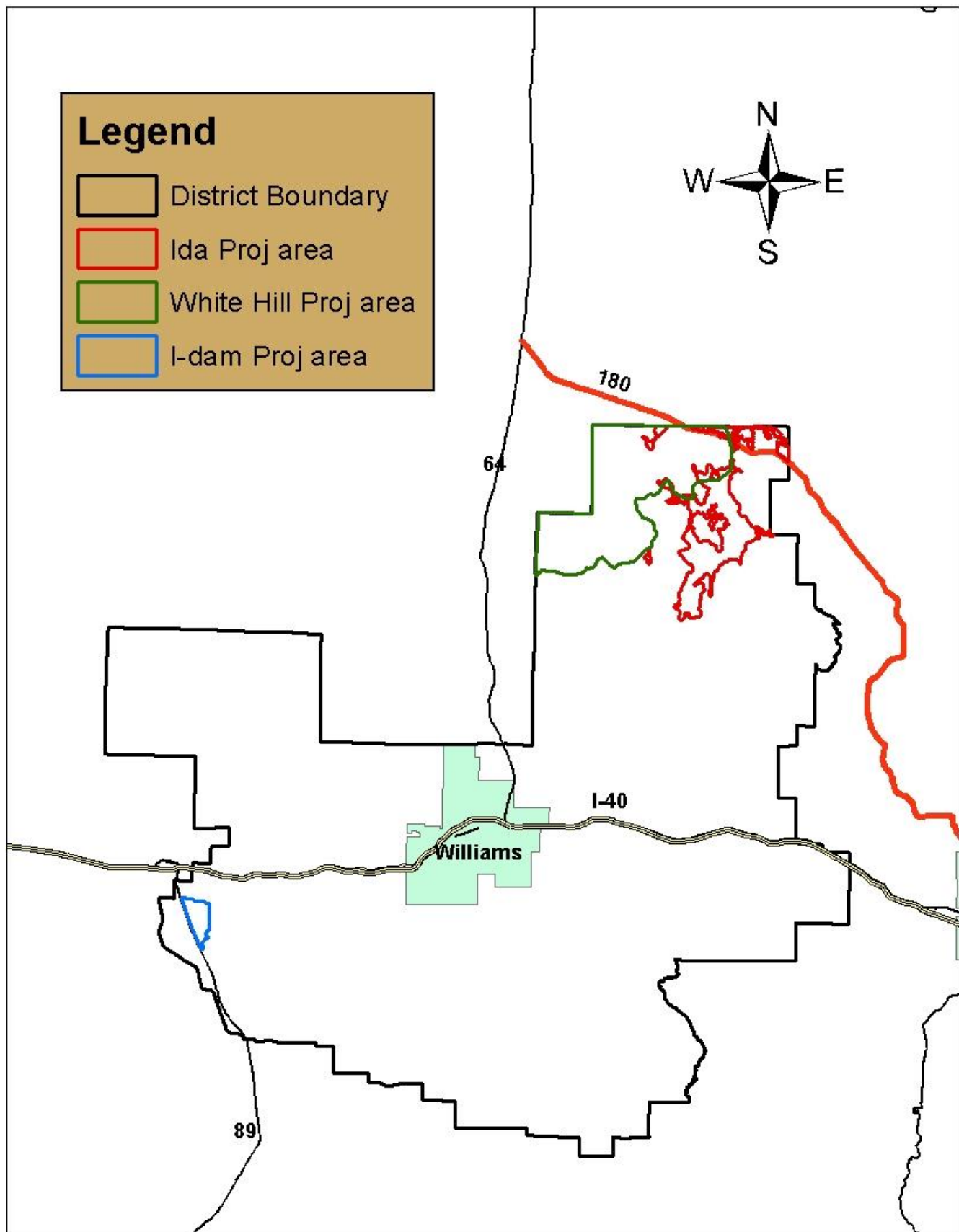
Example of grassland prior to agra-axe treatment.



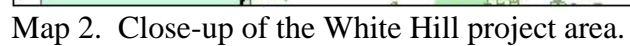
Example of grassland after agra-axe treatment.

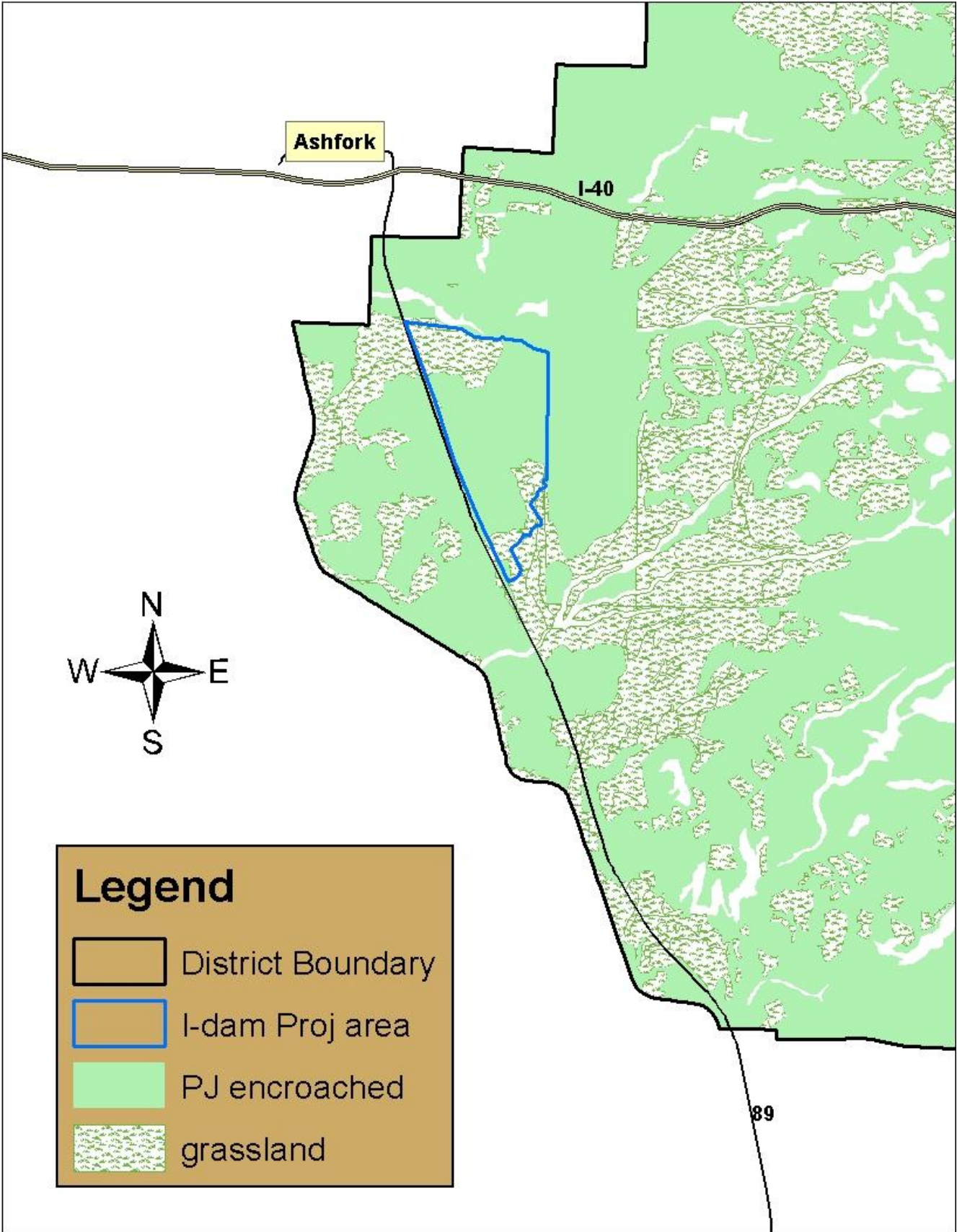


Example of lush, diverse grasses and forbs that grow underneath cut trees.

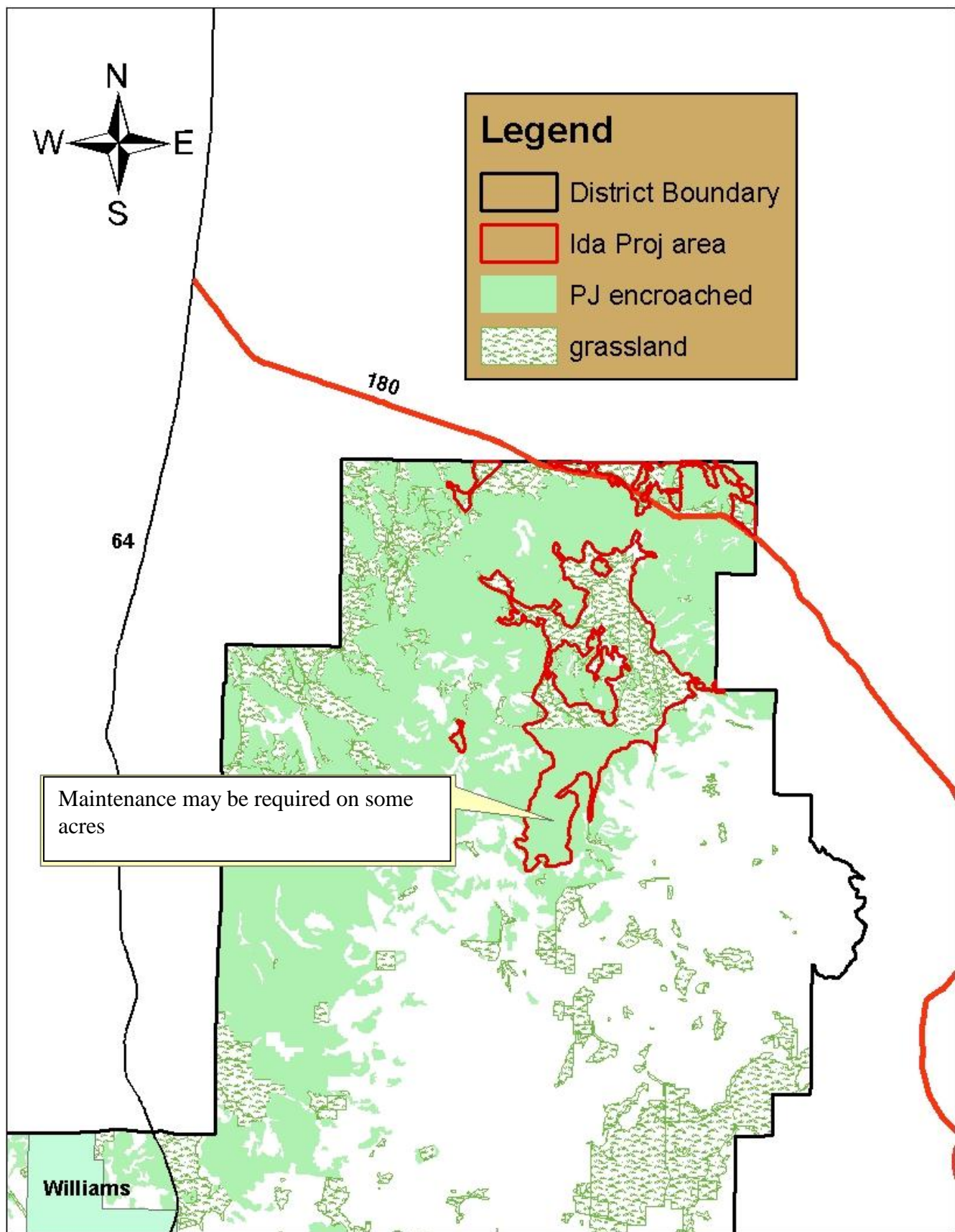


Map 1. Location of areas to be thinned with agra-axe machines. The Ida and White Hill project areas occur in the northeastern portion of the District. The Irishman Dam Grassland occurs in the southwestern portion of the District.

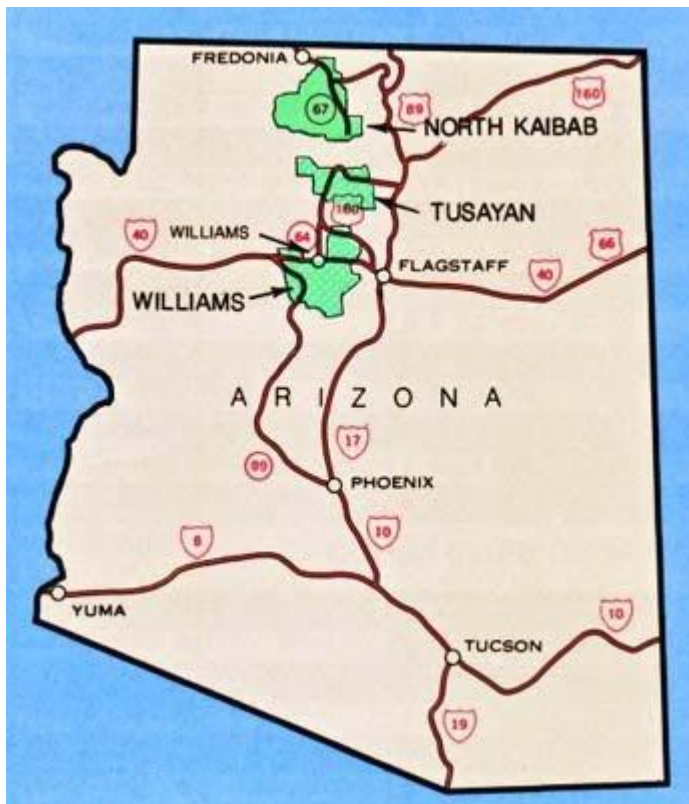




Map 3. Close-up of Irishman Dam Grassland.



Map 4. Close-up of Ida Grassland. Only Maintenance would be required in the Ida project area.



Map 5. Location of Williams Ranger District and greater Kaibab National Forest in relation to prominent landmarks of Arizona.